1    1.    A method of creating a digital certificate revocation list (CRL), comprising:

2          determining a latest owned CRL stored by a CRL recipient;

3          creating a delta CRL comprising a list of digital certificates with a status of

4    satisfying at least one inactive criterion, wherein said status has changed since the

5    latest owned CRL; and

6          sending the delta CRL to the CRL recipient.

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8    2.    The method according to claim 1, further comprising receiving a request for

9    a CRL, the request including an indication of the latest owned CRL, and wherein

10   the latest owned CRL is determined by examining the request.

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12   3.    The method according to claim 1, further comprising formatting the delta

13   CRL as an ASN.1 format delta CRL.

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15   4.    The method according to claim 1, wherein the creating comprises comparing

16   entries in the latest owned CRL with a current CRL.

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18   5.    The method according to claim 1, wherein the creating comprises querying

19   a database for entries spanning the latest owned CRL and a current CRL.

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21   6.    The method according to claim 1, wherein the creating comprises merging

22   data from a plurality of delta CRLs spanning from the latest owned CRL to a current

23   CRL.

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25   7.    The method according to claim 1, further comprising applying a digital

26   signature to the CRL.

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28   8.    An electronic storage medium storing instructions which when executed on

29   a programmed processor carry out the  method of creating a digital certificate

30   revocation list according to claim 1.

9. A method of creating a digital certificate revocation list (CRL), comprising:

receiving a request for a CRL, the request including an indication of a latest owned CRL;

creating a delta CRL comprising a list of digital certificates satisfying at least one inactive criterion since the latest owned CRL; and

sending the delta CRL as a reply to the request.

10. The method according to claim 9, further comprising formatting the delta CRL as an ASN.1 format delta CRL.

11. The method according to claim 9, wherein the creating comprises comparing entries in the latest owned CRL with a current CRL.

12. The method according to claim 9, wherein the creating comprises querying a database for entries spanning the latest owned CRL and a current CRL.

13. The method according to claim 9, wherein the creating comprises merging data from a plurality of delta CRLs spanning from the latest owned CRL to a current CRL.

14. The method according to claim 9, further comprising applying a digital signature to the CRL.

15. An electronic storage medium storing instructions which when executed on a programmed processor carry out the method of creating a digital certificate revocation list according to claim 9.

16. The method according to claim 9, wherein the sending comprises transmitting the CRL as a reply over an electronic communication medium.

1    17.    A data structure, stored on a computer readable storage medium or

2    transported over an electronic communication medium, for a digital certificate

3    revocation list (CRL), comprising:

4         a list of digital certificates representing changes to a CRL that have occurred

5    since generation of at least two additional CRLs; and

6         a CRL identifier; and

7         wherein the CRL is formatted as a delta CRL.

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9    18.    The data structure according to claim 17, wherein the CRL identifier

10   comprises a sequentially assigned number.

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